

## PATENT COOPERATION TREATY

## PCT

INTERNATIONAL PRELIMINARY EXAMINATION  
(PCT Article 36 and Rule 70)

INTERNATIONAL REPORT

10 AUG 2004

WIPO PCT

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| Applicant's or agent's file reference<br>7812.50-304   | FOR FURTHER ACTION <span style="float: right;">See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)</span> |  |
| International application No.<br>PCT/US 03/01064   | International filing date (day/month/year)<br>29.01.2003  | Priority date (day/month/year)<br>03.05.2002 |
| International Patent Classification (IPC) or both national classification and IPC<br>D21H19/38 |   |  |
| Applicant<br>NUTBEEM, Christopher et al.   |   |  |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
  - This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.
3. This report contains indications relating to the following items:
  - I  Basis of the opinion
  - II  Priority
  - III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - IV  Lack of unity of invention
  - V  Reasoned statement under Rule 66.2(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - VI  Certain documents cited
  - VII  Certain defects in the International application
  - VIII  Certain observations on the International application

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|--|---|
| Date of submission of the demand<br>21.11.2003   | Date of completion of this report<br>09.08.2004                         |
| Name and mailing address of the International preliminary examining authority:<br><br>European Patent Office<br>D-80298 Munich<br>Tel. +49 89 2399 - 0 Tx: 523656 epmu d<br>Fax: +49 89 2399 - 4465 | Authorized Officer<br><br>Karlsson, L<br>Telephone No. +49 89 2399-6424 |



INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT

International application No. PCT/US 03/01064

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an Invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-45 as originally filed

**Claims, Numbers**

1-14 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US 03/01064

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

**1. Statement**

|                               |             |                 |
|-------------------------------|-------------|-----------------|
| Novelty (N)                   | Yes: Claims | 4,6,9,12-14     |
|                               | No: Claims  | 1-3,5,7,8,10,11 |
| Inventive step (IS)           | Yes: Claims |                 |
|                               | No: Claims  | 1-14            |
| Industrial applicability (IA) | Yes: Claims | 1-14            |
|                               | No: Claims  |                 |

**2. Citations and explanations**

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. The present invention pertains to a coating compositions for inter alia paper wherein a particulate pigment is used in combination with a binder. The pigment comprises two components, namely the first component is Calcium carbonate and the second component is kaolin clay. According to the present claims 1 and 8, the coating composition may comprise three different combinations of these first resp. second compounds as defined in the present claims 1 and 8. Alternatives (a) and (c) of the mentioned coating compositions uses a combination of aragonite and rhombohedral PCC in combination with kaolin clay, whereas alternative (b) only define a combination of any calcium carbonate with kaolin.

2. It appears as the present set of claims do not meet the requirements of Article 6 PCT for the following reasons:

2.1 The present claim 1 has not been clearly defined, since it is tried to define the kaolin particles by using an unusual parameter "shape factor". It is hence not possible to compare the defined kaolin pigment with prior art, since this parameter conventionally not is used to defined the size and shape of the particles. Besides, the method for determining said parameter value has not been clearly defined in the description. Thus, this unclear features should instead be replaced with same conventionally used features for defining the size of the pigment-particles.

2.2 It is not clear what "other substrates" that may be embraced by the wording of the present claim 1.

3.1 To use a blend of calcium carbonate and kaolin as defined in alternative (b) of the present claim 1, in combination with a binder, for a coating composition is already known in the art. The documents D1:WO-A-00 66509, D2:EP-A-0 949 201, D3:Database WPI, AN 1993-224723 and D4:EP-A-0 768 344 do all disclose a coating composition as defined in the the present claim 1 (see D1, claims 1-16, examples 1,2; see D2, claims 1-7, example 2; see D3, whole document; see D4, claims 1-13 examples 2,7). Thus, the subject-matter of claim 1 does not meet the requirements of Article 33.2 PCT.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/US 03/01064

3.2 Presently the separate features of the dependent claims do not appear to add any novel and inventive matter with regard to the disclosures of documents D1 to D4 (Art.33.2 and 33.3 PCT). However, it appears as if a coating compositions restricted to embrace alternatives (a) and (c) would satisfy the requirements of Articles 33.2 and 33.3 PCT.